

Exhibit 3



MEMORANDUM OF AGREEMENT

BETWEEN

The Department of the Army AND
The Environmental Protection Agency

CONCERNING

Mitigation Sequence for Wetlands in Alaska
under Section 404 of the Clean Water Act

I. PURPOSE AND SCOPE

The United States Department of the Army ("Army") and the United States Environmental Protection Agency ("EPA") (together, the "agencies") hereby provide guidance regarding flexibilities that exist in the mitigation requirements for Clean Water Act Section 404 permits, and how those flexibilities can be applied in the state of Alaska given the abundance of wetlands and unique circumstances involved with Section 404 permitting in the state. This Memorandum of Agreement ("MOA") clarifies how existing national policies regarding practicability determinations and regulatory flexibility can be implemented in Alaska while ensuring sound environmental stewardship of the State's ecologically important wetland resources. This MOA updates and replaces the EPA and Army Memoranda entitled Clarification of the Clean Water Act Section 404 Memorandum of Agreement on Mitigation, dated January 24, 1992, and Statements on the Mitigation Sequence and No Net Loss of Wetlands in Alaska, dated May 13, 1994.

II. POLICY

A. Authority

This guidance is consistent with the agencies' regulations and policies including, but not limited to:

- Section 404 of the Clean Water Act (33 U.S.C. § 1344);
- Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) ("Guidelines");
- Compensatory Mitigation for Losses of Aquatic Resources, dated April 10, 2008 (33 CFR Part 332/40 CFR Part 230) ("2008 Mitigation Rule");
- MOA between the Army and the EPA Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines, dated February 8, 1990 ("1990 Mitigation MOA"); and

- The EPA and the Army Memorandum to the Field, entitled Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements, dated August 23, 1993 ("1993 Memorandum to the Field").

The Clean Water Act Section 404 regulatory program provides that the United States Army Corps of Engineers ("Corps") evaluates permit applications for the discharge of dredged or fill material into waters of the United States, including jurisdictional wetlands, in accordance with the Guidelines. The Guidelines are the substantive environmental criteria used in evaluating discharges of dredged or fill material into waters of the United States. The 2008 Mitigation Rule, which amended the Guidelines, revised and clarified requirements regarding compensatory mitigation for losses of aquatic resources (see 33 CFR Part 332 and 40 CFR Part 230, Subpart J). The 2008 Mitigation Rule did not alter the circumstances under which compensatory mitigation is required for Section 404 permits (see 33 CFR Part 332.1(b) and 40 CFR Part 230.91(b)). This rule did not alter the Corps' general policy that, for individual permits, all compensatory mitigation will be for significant resource losses which are specifically identifiable, reasonably likely to occur, and of importance to the human or aquatic environment (see 33 CFR Part 320.4(r)).¹ For activities authorized by general permits, mitigation may be required to reduce the adverse impacts so that they are no more than minimal (see 33 CFR Part 330.1(e)(3)). The 1993 Memorandum to the Field clarified the appropriate level of analysis required for evaluating compliance with the Guidelines. The 1990 Mitigation MOA contains the policy and procedures that the agencies use in determining the type and level of mitigation necessary to demonstrate compliance with the Guidelines. The portions of the 1990 Mitigation MOA concerning the amount, type, and location of compensatory mitigation were superseded by the 2008 Mitigation Rule.

B. Guiding Principles

In this MOA, the agencies recognize that specific to the state of Alaska:

- a) Avoiding wetlands may not be practicable where there is a high proportion of land in a watershed or region which is jurisdictional wetlands;
- b) Restoring, enhancing, or establishing wetlands for compensatory mitigation may not be practicable due to limited availability of sites and/or technical or logistical limitations;
- c) Compensatory mitigation options over a larger watershed scale may be appropriate given that compensation options are frequently limited at a smaller watershed scale;
- d) Where a large proportion of land is under public ownership, compensatory mitigation opportunities may be available on public land;

¹This general policy is not a substitute for the mitigation requirements necessary to ensure that a Section 404 permit action complies with the Guidelines (see 33 CFR Part 320.4(r) n.1).

e) Out-of-kind compensatory mitigation may be appropriate when it better serves the aquatic resource needs of the watershed; and

f) Applying a less rigorous permit review for small projects with minor environmental impacts is consistent with the Section 404 program regulations.

III. Discussion - Mitigation Sequence

The Guidelines' mitigation sequence established a consistent approach to ensure that all practicable measures have been taken to reduce potential adverse impacts associated with proposed projects in wetlands and other aquatic systems (see 40 CFR Part 230.10(a), (d)). The Guidelines define the term "practicable" as "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes" (see 40 CFR Part 230.3(l)). The first step in the mitigation sequence requires the evaluation of potential alternative sites to locate the proposed project so that aquatic impacts are avoided to the extent practicable. As the next step in the mitigation sequence, remaining impacts are to be minimized, by making changes in project design or construction methods that reduce overall project impacts. Last, after all practicable steps have been taken to avoid and minimize potential adverse effects, compensation for remaining unavoidable impacts may be required through such measures as wetlands or other aquatic resource restoration, establishment, enhancement, or, in certain circumstances, preservation in order to replace lost aquatic functions and values. Compensatory mitigation is required only to the extent that it is appropriate and practicable.

Given the unique climatological and physiographic circumstances found in Alaska, it is appropriate to apply the inherent flexibility provided by the Guidelines to proposed projects in Alaska. Applying this flexibility in a reasoned, common-sense approach will lead to effective decision-making and sound environmental protection in Alaska.

A. Avoidance

Avoiding impacts to wetlands may not be practicable in areas where there is a high proportion of land which is jurisdictional wetlands. Moreover, in some cases, the overwhelming majority of lands within a community's municipal boundary are considered jurisdictional wetlands, and the remaining non-wetlands areas may be undevelopable. As another example, on the North Slope, upland alternatives for siting oil and gas development are extremely rare given the abundance of wetlands in the area.

B. Minimization

Where wetlands have been avoided to the extent practicable, emphasis is placed on minimizing project impacts to wetlands by reducing the footprint of the project, using co-location of facilities whenever possible, implementation of best management practices

to reduce environmental impacts, seeking to locate the project in wetlands with lower functions and values, or other appropriate measures. With respect to the mitigation sequence, where neither avoidance nor compensatory mitigation is practicable, minimizing impacts will be the primary means of satisfying compliance with the Guidelines. In Alaska, minimization of impacts has been in many circumstances the only mitigation required.

C. Compensatory Mitigation

Compensatory mitigation is provided in the Guidelines in order to offset unavoidable losses of aquatic functions and values associated with the permitted destruction and/or degradation of wetlands and other aquatic resources under the Section 404 regulatory program. It is also the primary means of the Section 404 regulatory program's contribution to the national goal of no overall net loss of wetlands. However, the Guidelines and the 1990 Mitigation MOA recognize that compensatory mitigation may not be appropriate and practicable for every authorized discharge.

Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a Section 404 permit complies with the Guidelines (see 33 CFR Part 332.1(c)(2) and 40 CFR Part 230.91(c)(2)). For example, compensatory mitigation may be required to ensure that discharges do not cause or contribute to a violation of water quality standards or jeopardize a threatened or endangered species or result in the destruction or adverse modification of critical habitat under the Endangered Species Act (see 40 CFR Part 230.10(b)). Compensatory mitigation may be required to ensure that discharges do not cause or contribute to significant degradation (see 40 CFR Part 230.10(c)). The Guidelines also require compensatory mitigation measures when appropriate and practicable (see 40 CFR Parts 230.10(d) and 230.12; 33 CFR Parts 332.1 and 332.3(a)(1); and 40 CFR Parts 230.91 and 230.93(a)(1)).²

For the purposes of issuing Section 404 permits, the Corps is responsible for determining whether a proposed activity complies with the Guidelines (see 40 CFR Part 230.5; 33 CFR Part 332.1(c)(2) and 40 CFR 230.91(c)(2)), including whether compensatory mitigation is required for that Section 404 permit. The Corps determines the compensatory mitigation requirements for Section 404 permits, based on what is practicable and capable of compensating for the aquatic resource functions that will be lost as a result of the permitted activity (see 33 CFR Part 332.3(a)(1) and 40 CFR Part 230.93(a)(1)). Compensatory mitigation requirements must be commensurate with the amount and type of impact that is associated with a particular Section 404 permit (see 33 CFR Part 332.3(a)(1) and 40 CFR Part 230.93(a)(1)).

- 1) **Considering Compensatory Mitigation Options in Alaska.** In general, required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully

² During the 404(b)(1) Guidelines compliance analysis, the Corps may determine that a Section 404 permit for a proposed discharge cannot be issued because of a lack of appropriate and practicable compensatory mitigation options (see 33 CFR Part 332.1(c)(3) and 40 CFR Part 230.91(c)(3)).

replace lost aquatic resource functions and values. The Corps considers compensatory mitigation options in the following order: (1) purchase of credits from an approved mitigation bank; (2) purchase of credits from an approved in-lieu fee program; and (3) completion of a permittee-responsible mitigation project. However, the Corps has discretion to override this preferential order (see 33 CFR Part 332.3(b)(2) and 40 CFR Part 230.93(b)(2)). In many parts of Alaska, the first two options may not be available or may not provide the appropriate number or resource type of credits to offset the proposed project impacts. In this case, some form of permittee-responsible mitigation is the only option and permittee-responsible mitigation developed using a watershed approach is preferred (see 33 CFR Part 332.3(b) and 40 CFR Part 230.93(b)).

- a. **Watershed Approach.** The goal of a watershed approach is to maintain and improve the quality and quantity of aquatic resources within watersheds through strategic selection of compensatory mitigation sites. If an appropriate watershed plan is available, the watershed approach should be based on that plan. In the absence of an appropriate watershed plan, the Corps uses a watershed approach based on analysis of information regarding watershed conditions and needs (see 33 CFR Part 332.3(c)(3) and 40 CFR Part 230.93(c)(3)).
 - b. **Watershed Scale.** Certain environmental factors in Alaska suggest that larger watershed scales than are commonly used in the lower 48 states may be appropriate. These factors include, but are not limited to: (1) large areas where wetlands remain relatively free from human alteration and opportunities for wetland restoration and enhancement are limited; and (2) large wetland dominated areas where there is a lack of upland sites appropriate for establishing wetlands. The size of watershed addressed using a watershed approach should not be larger than is appropriate to ensure that the aquatic resources provided through compensation activities will effectively compensate for adverse environmental impacts resulting from activities authorized by Section 404 permits. The Corps considers relevant environmental factors and appropriate locally developed standards and criteria when determining the appropriate watershed scale in guiding compensation activities (see 33 CFR Part 332.3(c)(4) and 40 CFR Part 230.93(c)(4); see also 33 CFR Part 332.3(d) and 40 CFR Part 230.93(d) for compensation site selection considerations).
- 2) **Compensatory Mitigation on Public Lands.** An additional factor in the evaluation of appropriate and practicable compensation sites is whether they occur on private or public lands. In Alaska, where a large proportion of land is under public ownership, compensatory mitigation opportunities may be available on public land. Compensatory mitigation projects may be conducted on private or public land. However, compensatory mitigation credit for such projects on public land must be based solely on aquatic resource functions provided by

compensatory mitigation projects that are over and above the aquatic resource functions already being provided by the public land in accordance with how that land is currently being managed by the responsible land management entity (see 33 CFR Part 332.3(a)(3) and 40 CFR Part 230.93(a)(3)). For example, compensation credit could be generated by implementing aquatic resource restoration or enhancement projects on public lands that are not currently being planned for or by providing additional levels of protection to publicly held sites.

- 3) **Technical Feasibility.** In determining whether compensatory mitigation is practicable, issues associated with the technical feasibility of restoring, enhancing, or establishing wetlands and other aquatic resources are also relevant. In spite of significant advances in restoration science, the technical challenges associated with establishing and re-establishing certain difficult-to-replace aquatic resources, such as permafrost wetlands, remains high. Compensation for impacts to these types of resources should be provided, if practicable, through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that these methods of compensation will successfully offset permitted impacts (see 33 CFR Part 332.3(e)(3) and 40 CFR Part 230.93(e)(3)). The Corps has determined in many cases that establishing or re-establishing wetlands underlain by permafrost was not practicable, and therefore in-kind wetland establishment or re-establishment has generally not been required as compensatory mitigation under the Guidelines. If the permafrost layer has not been substantially altered, in-kind wetland rehabilitation or enhancement may be a practicable wetland compensatory mitigation option. As a general matter, in cases where wetland restoration is practicable, it should generally be the first option considered because the likelihood of successful ecological outcomes is greater and the impacts to ecologically important uplands are reduced compared to wetland establishment, and the potential gains in terms of aquatic resource functions are greater, compared to wetland enhancement and preservation (see 33 CFR Part 332.3(a)(2) and 40 CFR Part 230.93(a)(2)). When in-kind mitigation is determined to be technically infeasible, out-of-kind mitigation should be considered.
- 4) **Out-of-Kind Compensatory Mitigation.** In general, in-kind mitigation is preferable to out-of-kind mitigation because it is most likely to compensate for the functions and services lost at the impact site (see 33 CFR Part 332.3(e)(1) and 40 CFR Part 230.93(e)(1)). However, when the Corps determines that compensatory mitigation is necessary to ensure compliance with the Guidelines, out-of-kind compensatory mitigation may be an appropriate, practicable, and, in Alaska, an environmentally preferable alternative to wetland restoration, enhancement, establishment, or preservation. If the Corps determines, using the watershed approach described in 33 CFR Part 332.3(c) and 40 CFR Part 230.93(c), that out-of-kind compensatory mitigation will serve the aquatic resource needs of the watershed, the Corps can require that compensatory mitigation. For example, in Alaska, restoring or enhancing streams and their riparian areas impacted by mining and other activities to improve fish habitat and

other stream functions, or removing barriers in streams (e.g., perched or undersized culverts) to improve connectivity and other aquatic functions may, in certain circumstances, be environmentally preferable to wetland restoration, enhancement, establishment, or preservation. If out-of-kind compensatory mitigation is required for the Section 404 permit, the Corps must document the reason(s) for that requirement in the administrative record for the permit action (see 33 CFR Part 332.3(e)(2) and 40 CFR Part 230.93(e)(2)).

- 5) **Preservation.** Consistent with the 2008 Mitigation Rule, compensatory mitigation provided through preservation should be, to the extent appropriate and practicable, conducted in conjunction with aquatic resource restoration, establishment, and/or enhancement activities (see 33 CFR Part 332.3(h)(2) and 40 CFR Part 230.93(h)(2)). This requirement may be waived by the Corps in cases where preservation has been identified as a high priority using a watershed approach. In those cases, the compensation ratios shall be higher. Lands that are already provided a high level of protection (e.g., state and national parks, wildlife refuges, and designated wilderness) would not be eligible for preservation credit given the requirement in the 2008 Mitigation Rule that the resources being considered for preservation must be under threat of destruction or adverse modifications (see 33 CFR Part 332.3(h)(1)(iv) and 40 CFR Part 230.93(h)(1)(iv)).

IV. Flexibility in the Review of Small Projects with Minor Impacts

The Guidelines also afford flexibility in the review of Section 404 permit applications based on the relative severity of the environmental impact of proposed discharges of dredged or fill material. In particular, the amount of information and the level of scrutiny needed to determine compliance with the Guidelines is commensurate with the severity of the environmental impact (as determined by the functions of the aquatic resource and the nature of the proposed activity) and the scope/cost of the project (see, e.g., 40 CFR Parts 230.6 and 230.10, and the 1993 Memorandum to the Field).

While Section 404 permit reviews are associated with a wide variety of activities, ranging from those with large, complex impacts on the aquatic environment to those for which the impacts are likely to be innocuous (e.g., de minimis), it is unlikely that the Guidelines will apply in their entirety to any one activity, no matter how complex. Moreover, substantial numbers of permit applications are for minor, routine activities that have little, if any, potential for adverse effects on the aquatic environment. It generally is not intended or expected that extensive evaluation or analysis will be needed to make findings of compliance with the Guidelines in such routine cases.

In determining whether a proposed discharge would have minor impacts, and consequently, the appropriate level of analysis, the permitting authority should consider whether the proposed project meets the following considerations:

- a) located in aquatic resources of limited natural function;

b) small in size and causes little direct impact; and

c) limited potential for secondary or cumulative impacts; or causes only temporary impacts (i.e., short-term and reversible impacts).

It is important to recognize, however, that in some circumstances even small or temporary fills result in substantial impacts, and that in such cases a more detailed evaluation is necessary. In particular, where high value coastal wetlands may be adversely affected or marine, estuarine, or anadromous fish habitat may be harmed, it is likely that a more detailed Guidelines analysis will be necessary. Moreover, it is not appropriate to consider compensatory mitigation in determining whether a proposed discharge will cause only minor impacts for the purposes of the Guidelines' alternatives analysis.

The Guidelines require that the Corps can only authorize discharges that are the least environmentally damaging practicable alternative ("LEDPA"), which is the practicable alternative with the least amount of adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences³ (see 40 CFR Part 230.10(a)). Part of this analysis is overcoming the presumption that for projects that do not require siting in special aquatic sites (e.g., wetlands) to fulfill their basic purpose, practicable alternatives that do not include discharges to special aquatic sites are available and would have less adverse impact, unless demonstrated otherwise. However, in reviewing projects that have the potential for only minor impacts on the aquatic environment, the Guidelines would not necessarily require an elaborate search for practicable alternatives if it is reasonable to anticipate that there are only minor differences between the environmental impacts of the proposed activity and other potentially practicable alternatives. Moreover, when it is determined that there is no identifiable or discernible difference in adverse impacts on the environment between the applicant's proposed alternative and all other practicable alternatives, then the applicant's alternative is generally considered as satisfying the Guidelines' alternatives analysis requirements.

Even where a practicable alternative exists that would have less adverse impact on the aquatic ecosystem, the Guidelines allow it to be rejected if it would have other significant adverse environmental consequences (see 40 CFR Part 230.10(a)). This flexibility allows for the consideration of adverse impacts to other ecosystems in deciding whether there is a less environmentally damaging practicable alternative. For example, in some areas of Alaska, impacts to certain uplands, such as moose calving areas or important riparian habitat next to rivers and streams inhabited by anadromous fish should be considered as part of such an analysis. Hence, in applying the alternatives analysis required by the Guidelines, it is not appropriate to select an alternative where minor impacts on the aquatic environment are avoided at the cost of substantial impacts to other natural environmental values.

³ Except as provided under 33 U.S.C. § 1344(b)(2).

Where proposed activities result in negligible impacts, it may be possible to conclude that no alternative location could result in less adverse impact on the aquatic environment within the meaning of the Guidelines. In such cases, it is not necessary to conduct an offsite alternatives analysis; instead, on-site minimization may be more appropriate. However, if applicable, the requirements of 40 CFR Part 230.10(a)(3) still apply to proposed activities that would result in negligible impacts.

V. Conclusion

The Clean Water Act Section 404 program provides a significant degree of flexibility in making permit decisions to reflect circumstances throughout the Nation, including Alaska. This MOA is consistent with EPA and Army regulations and policies for the Section 404 program as it relates to determination of appropriate mitigation. For Alaska:

- Avoiding wetlands may not be practicable where there is a high proportion of land in a watershed or region which is jurisdictional wetlands;
- Restoring, enhancing, or establishing wetlands for compensatory mitigation may not be practicable due to limited availability of sites and/or technical or logistical limitations;
- Compensatory mitigation options over a larger watershed scale may be appropriate given that compensation options are frequently limited at a smaller watershed scale;
- Where a large proportion of land is under public ownership, compensatory mitigation opportunities may be available on public land;
- Out-of-kind compensatory mitigation may be appropriate when it better serves the aquatic resource needs of the watershed; and
- Applying a less rigorous permit review for small projects with minor environmental impacts is consistent with the Section 404 program regulations.

Given this flexibility, Alaskans should be assured that discharges of dredged or fill material into waters of the United States will be evaluated in a reasonable manner, consistent with the agencies' goal of fair, flexible, and effective protection of the Nation's wetlands resources.

VI. Limitations

This MOA is a voluntary agreement between the EPA and the Army that expresses the policies of the parties, does not create any contractual obligations, and is not enforceable by any party. This MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity against the Army or the EPA, their officers or


employees, or any other person. The parties reserve the right to modify this agreement in accordance with its terms without public notice.

The Clean Water Act provisions and regulations described in this document contain legally binding requirements. This document does not substitute for those provisions or regulations, does not create legally binding requirements, nor is it a regulation itself. It does not impose legally binding requirements on the EPA, the Army, or the regulated community, and may not apply to a particular situation depending on the circumstances. The EPA and the Army retain the discretion to adopt approaches on a case-by-case basis that differ from those provided in this document as appropriate and consistent with statutory and regulatory requirements.



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